

UNITED STATES DISTRICT COURT
DISTRICT OF DELAWARE

ZF MERITOR LLC and MERITOR)
TRANSMISSION CORPORATION,)
Plaintiffs,) REDACTED - PUBLIC VERSION
v.)
EATON CORPORATION,) Civil Action No. 06-623 (SLR)
Defendant.)
)

**APPENDIX TO PLAINTIFFS' ANSWERING BRIEF IN
OPPOSITION TO DEFENDANT'S MOTION TO EXCLUDE OPINION
TESTIMONY OF DR. DAVID W. DERAMUS**

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REDACTED

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

ZF Meritor LLC and Meritor Transmission Corporation)
Plaintiffs)
v.)
Eaton Corporation)
Defendant)

Declaration of David W. DeRamus, Ph.D.

in Response to

Defendant's Memorandum of Law in Support of its Motion to Exclude Opinion Testimony
of Dr. David W. DeRamus

June 11, 2009

Declaration of David W. DeRamus, Ph.D.

1. Scope of Declaration

- (1) My name is David W. DeRamus. My business address is 1300 Eye Street, NW, Suite 600E, Washington, DC, 20005. I have been asked by counsel for ZF Meritor LLC (“ZF Meritor”) and Meritor Transmission Corporation (“Meritor,” and with ZF Meritor, “ZFM” or “Plaintiffs”) to respond to various allegations and arguments raised by Eaton Corporation (“Eaton” or “Defendant”) in its May 11, 2009 motion to exclude my testimony in this matter.

2. Summary of Defendant’s arguments

- (2) Counsel for Eaton raises the following primary arguments in support of its motion to exclude my testimony in its entirety:
 - I have presented no accepted scientific test with which to establish the exclusionary effect of Eaton’s conduct.
 - Because I have not performed an “attribution test,” I have no objective means of concluding that Eaton’s conduct was anticompetitive.
 - I have not disaggregated damages to account for the effect on ZFM of factors unrelated to Eaton’s anticompetitive conduct.
 - My damages analysis is based on an economically unsound assumption that ZFM would have raised prices in a “but for” world absent Eaton’s anticompetitive conduct.
 - My damages analysis is based on business projections that I have insufficiently analyzed in order to determine their reliability.
 - My damages analysis is based on the unsupported assumption of a large untapped demand for automated mechanical transmissions that is assertedly contradicted by the facts.
 - My analysis of lost enterprise value is inconsistently applied, “rigged,” and contrary to an IRS Revenue Ruling.

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3. My report relies on accepted scientific methods of analysis

- (3) While Eaton argues that my analysis should be excluded in its entirety, none of Eaton's criticism is applicable to my well-accepted approach to defining the relevant markets and to establishing that Eaton has monopoly power in the relevant markets. Establishing Eaton's monopoly power is a fundamental "building block" for an economic assessment of whether the conduct at issue is anticompetitive.
- (4) My analysis of harm to competition is consistent with the "rule of reason" approach adopted by economists¹ in assessing allegations of illegal monopolization.
- (5) As discussed in my testimony, there is a voluminous economic literature that discusses the conditions under which conduct such as Eaton's can be anticompetitive. Each of the conditions that economists (and the courts) have often identified as leading to anticompetitive harm is present here. For example:
 - Eaton is a monopolist;²
[REDACTED]
[REDACTED]
■ [REDACTED]

¹ See, e.g., William E. Kovacic and Carl Shapiro, "Antitrust policy: a century of economic and legal thinking," *Journal of Economic Perspectives* 14, (2000): pp. 43-60.

² See DeRamus Report, Section 6. Also see, for example, *Standard Fashion Co. v. Magrane-Houston Co.*, 258 U.S. 346 (1922), and *United Shoe Machinery Corp. v. United States*, 258 U.S. 346 (1922) for early Supreme Court decisions, and *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir.), cert. denied, 122 S. Ct. 350 (2001) and *Avery Dennison Corp. v. ACCO brands, Inc.*, 2000-1 Trade Cas. (CCH) ¶ 72,882 (C.D. Cal. 2000), for more recent decisions.

³ Note that, even in cases in which the contracts at issue are of short duration or can be terminated at will, what matters is whether such termination is practically feasible for the buyer. See, for example, the discussion of *JM v. Appleton Papers*, 35 F. Supp. 2d 1138 (D. Minn 1999), and *United States v. Dentsply*, 2001-1 Trade Cas.(CCH) ¶ 73,247 (D. Del. 2001) in Jonathan Jacobson, "Exclusive Dealing, "Foreclosure," and Consumer Harm," 70 *Antitrust Law Journal*, 311, 327 (2002).

⁴ See, e.g., *United States v. Dentsply*. [REDACTED]

⁵ See, e.g., Michael D. Whinston, *Lectures on Antitrust Economics*, MIT Press (2008): pp. 147-148, "To succeed in continuing exclusion, an incumbent needs to ensure that the number of free buyers is low at every point in time.

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- (6) Contrary to Eaton's assertion, I have provided in my report a number of different, widely accepted "testable hypotheses" – extensively discussed in the peer-reviewed economic literature – to assess whether Eaton's conduct is anticompetitive, including:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

This will involve the incumbent staggering the expiration dates of his contracts if these are of limited duration.”

⁶ [REDACTED] see, for example, A. Majumdar and Shaffer, G. (2009), “Market-Share Contracts with Asymmetric Information,” *Journal of Economics & Management Strategy*, Vol. 18, Issue 2 (Summer), pp. 393-421. [REDACTED] include *Avery Dennison Corp. v. ACCO brands, Inc.*, 2000-1 Trade Cas. (CCH) ¶ 72,882 (C.D. Cal. 2000) and *LePage's Inc. v. 3M*, 277 F.3d 365 (3d Cir. 2002) (rejecting claim), rehearing en banc granted, judgment vacated, Nos. 00-1368, 00-1473 (3d Cir. Feb. 25, 2002).

⁷ [REDACTED]

⁸

See DeRamus Report, Sections 6.3 and 6.5.

⁹ See DeRamus Report, Section 10.4.

¹⁰ See DeRamus Report, Section 10.9.

¹¹ See DeRamus Report, Section 10.8.

¹² See DeRamus Report, Section 10.3.

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- (7) The analysis of barriers to entry has a long history in economics.¹³ It is also a basic component of the U.S. DOJ/FTC Horizontal Merger Guidelines and has featured prominently in many court decisions involving antitrust issues. For example, in *U.S. v. Microsoft*, a central issue was the extent to which Microsoft was able to maintain its monopoly power in the relevant market by preventing threats to the “applications barrier to entry,” e.g., by foreclosing Netscape and other threats to its PC operating system monopoly.¹⁴ In my testimony, I not only analyze whether there are pre-existing barriers to entry in the relevant markets, but also whether Eaton’s conduct at issue has had the effect of creating or reinforcing barriers to entry in the relevant markets. Indeed, I conclude that not only has Eaton’s conduct had this effect, but Eaton itself has explicitly recognized the barrier to entry – preventing entry by new competitors – that Eaton’s conduct has created.¹⁵
- (8) Many of my conclusions are based on a well-established economic theory of competitive harm, known as “raising rival’s costs,” as discussed in my testimony.¹⁶ As argued by Krattenmaker and Salop and summarized by Jacobson: “the raising rivals’ costs approach, or RRC, posits that an exclusionary arrangement (such as exclusive dealing) can raise the market price of a product, and thereby harm consumers, if the exclusive arrangement (1) is imposed by a firm with actual or potential market power, (2) increases the costs of rivals (through foreclosure or otherwise) sufficiently to diminish their capability to constrain the firm’s market power, and (3) thereby permits the firm to raise prices to customers in the relevant market.”¹⁷ I have thoroughly analyzed the evidence and demonstrated that the three conditions above are satisfied in the case at hand.

¹³ See, e.g., Joe S. Bain, *Barriers to New Competition*. Harvard University Press, 1956; William J. Baumol and Robert D. Willig, “Fixed Costs, Sunk Costs, Entry Barriers, and Sustainability of Monopoly”, *Quarterly Journal of Economics* 96 (1981): pp. 405-431; R. Preston McAfee, Hugo M. Mialon, and Michael A. Williams, “What is a Barrier to Entry?” *American Economic Review* 94, (2004): pp. 461-465; Barry Nalebuff, “Bundling as an Entry Barrier”, *Quarterly Journal of Economics* 119, (2004): pp. 159-187; Martin Peitz, “Bundling may blockade entry”, *International Journal of Industrial Organization* 26, (2008): pp. 41-58.

¹⁴ See, e.g., *U.S. v. Microsoft*, Findings of Fact, ¶¶68, 93, 142, 155, 227, 384, 409, and 411.

¹⁵ See DeRamus Report, Section 6.3. The fact that a monopolist’s exclusionary conduct can erect barriers to entry has been recognized in several monopolization cases, see e.g. *United States v. Pullman Co.*, 50 F. Supp. 123 (E.D. Pa. 1943) and *United Shoe Machinery Corp. v. United States*, 258 U.S. 451 (1922).

¹⁶ DeRamus Report, ¶226.

¹⁷ Thomas Krattenmaker and Steven Salop, “Anticompetitive Exclusion: Raising Rivals’ Costs to Achieve Power over Price,” 96 *Yale Law Journal* 209 (1986); and Jonathan Jacobson, “Exclusive Dealing, “Foreclosure,” and

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(9)

[REDACTED] The focus of an analysis of anticompetitive effects of the conduct at issue on end customers has long been of central importance to economists and the courts.

[REDACTED]

This economic theory of anticompetitive harm is consistent with a wide body of recent economic literature, particularly in the context of the use of rebates and bundling by “upstream” manufacturers selling to distributors or other “downstream” firms – with the upstream and downstream firms effectively colluding to increase prices to end customers and splitting the resulting economic rents.²⁰

(10)

[REDACTED] There is perhaps no clearer “standard economic model” in analyzing whether conduct at issue is anticompetitive than an assessment of whether the conduct has or will likely lead to increased prices.

[REDACTED] A monopolist’s efforts to deprive customers of the benefits of technological innovation have also been of concern to economists and the courts. In economics, it

Consumer Harm,” 70 *Antitrust Law Journal*, 311, 327 (2002).

¹⁸ See, e.g., Barry Nalebuff, “Exclusionary bundling”, *Antitrust Bulletin* 50, (2005); pp. 321-370; Patrick Greenlee, David Reitman, and David S. Sibley, “An antitrust analysis of bundled loyalty discounts”, *International Journal of Industrial Organization* 26, (2008): pp. 1132-1152.

¹⁹ See DeRamus Report, Section 10.9.

²⁰ See J.-M. Abito and J. Wright, “Exclusive Dealing with Imperfect Downstream Competition”, *International Journal of Industrial Organization*, 2008, 26: 227-246; J. Wright, “Exclusive Dealing and Entry, when Buyers Compete: Comment,” *American Economic Review*, forthcoming; J. Simpson and Wicketgren, “Naked Exclusion, Efficient Breach, and Downstream Competition,” *American Economic Review*, 2007, 97(4): 1305-20.

²¹ See DeRamus Report, Section 10.8.

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is well understood that anticompetitive exclusionary conduct can reduce the ability of competitors to introduce innovations.²² The primary purpose of the U.S. DOJ Intellectual Property Guidelines is to address the potential harm to innovation resulting from anticompetitive restrictions on intellectual property.²³ Similarly, in *U.S. v. Microsoft*, a central issue was the extent to which Microsoft's conduct foreclosed new, innovative technologies that had the potential to change computing.²⁴ [REDACTED]

[REDACTED]

- (12) In my report, I also perform an econometric analysis to assess whether there was a "structural break" starting in July 2000, consistent with the hypothesis that Eaton's anticompetitive conduct caused a significant reduction in ZFM's market share.²⁵ In particular, in order to test for the effect of Eaton's exclusionary conduct on ZFM's market share, I interact a conduct "indicator variable" with all of the other explanatory variables. If Eaton's exclusionary conduct had no anticompetitive effect, I would expect the coefficients on the conduct indicator variable and the interacted terms to be statistically indistinguishable from zero. In fact, all of the estimated coefficients on the interacted terms are statistically different from zero (at the 90% confidence level), and a standard statistical test (the "Wald test") confirms a "structural break" [REDACTED]

4. An attribution test is unnecessary in this case due to the scope of conduct at issue

- (13) While I consider Eaton to have engaged in significant predation, there are many ways in which a monopolist can engage in predation.²⁶ While some form of a price-cost or

²² See, e.g., Kenneth J. Arrow, "Economic welfare and the allocation of resources for invention", in *The rate and direction of inventive activity*, National Bureau of Economic Research conference report. Princeton: Princeton University Press, 1962, pp. 609-625; Jerry Ellig, ed. *Dynamic competition and public policy: technology, innovation, and antitrust issues*, Cambridge University Press, 2001; Carl Shapiro, "Antitrust, Innovation, and Intellectual Property," Testimony before the Antitrust Modernization Commission, 2005.

²³ See U.S. DOJ/FTC Antitrust Guidelines for the Licensing of Intellectual Property, available at <http://www.usdoj.gov/atr/public/guidelines/0558.htm>

²⁴ See *U.S. v. Microsoft*, Findings of Fact, ¶412.

²⁵ See DeRamus Report, Sections 11.6 and 15.2.

²⁶ See, for example, the discussion of the economic literature in Michael D. Whinston, *Lectures on Antitrust Economics*, MIT Press (2006), Chapter 4, and the court decisions in *United States v. Microsoft Corp.*, 253 F.3d 34

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attribution test may be appropriate when bundling and/or rebates are the *only* conduct at issue,

Rather, Eaton has engaged in a variety of other conduct, including, without limitation:

- (14) As discussed in my testimony,³⁴ the conclusions of the economic literature have been refined in a number of recently published articles showing that exclusion of a rival by a monopolist is even more likely when its direct buyers are downstream firms (such as the OEMs in the HD Transmission markets) than when they are end customers. OEMs are more likely to help a monopolist supplier exclude a rival supplier because they can shift the burden of any future price increase resulting from a loss of competition in the upstream market onto end customers. This theory shows that the

(D.C. Cir.), *cert. denied*, 122 S. Ct. 350 (2001) and *LePage's Inc. v. 3M*, 277 F.3d 365 (3d Cir. 2002) (rejecting claim), *rehearing en banc granted, judgment vacated*, Nos. 00-1368, 00-1473 (3d Cir. Feb. 25, 2002).

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payment for exclusivity can be a means for a monopolist to share with the downstream firms (the OEMs) the monopoly rents created or preserved by excluding the rival. Besides harming the rival, this exclusionary strategy harms end customers, who face higher prices and reduced product variety.³⁵

- (15) As shown in an article co-authored by Dr. Sibley, one of Eaton's economic experts, a dominant firm can leverage its absolute monopoly power in a given market (e.g., HD performance transmissions) to marginalize a rival and raise prices in another market (e.g., HD linehaul transmissions) in which the dominant firm faces actual or potential competition.³⁶ As argued by Dr. Sibley and his co-authors: "A main point of this article is that *bundled rebates are not usefully analyzed using predatory pricing case law*. Not only do prices typically exceed marginal cost, but *anticompetitive effects may not require a short term profit sacrifice or a period of recoupment*. Bundled rebates can generate anticompetitive effects, but they do so by confronting consumers with the choice between a collection of tied discount prices and unattractive standalone prices, all above cost."³⁷
- (16) Noted economist Michael Whinston in his book *Lectures on Antitrust* confirms that there is no basis to Eaton's assertion that an "attribution" test is a *sine qua non* of any scientific, testable theory of competitive harm through exclusionary contracts.³⁸ Chapter 4 of Whinston's book, devoted to "exclusionary vertical contracts", is one of the most recent, complete, and well-regarded texts on the subject. *The attribution test, or any other type of price-cost test, is not mentioned at all in the entire chapter.* This does not mean that a price-cost test is never informative, but it clearly refutes Eaton's assertions that any *bona fide* economic theory of exclusionary contracts requires an attribution test.
- (17) While an attribution test is unnecessary given the facts in this case, there is also no standard attribution test that can be mechanistically applied in all cases. Indeed, in

³⁵ See J.-M. Abito, and J. Wright, "Exclusive Dealing with Imperfect Downstream Competition", *International Journal of Industrial Organization*, 2008, 26: 227-246; J. Wright, "Exclusive Dealing and Entry, when Buyers Compete: Comment," *American Economic Review*, forthcoming; J. Simpson and Wickelgren, "Naked Exclusion, Efficient Breach, and Downstream Competition," *American Economic Review*, 2007, 97(4): 1305-20.

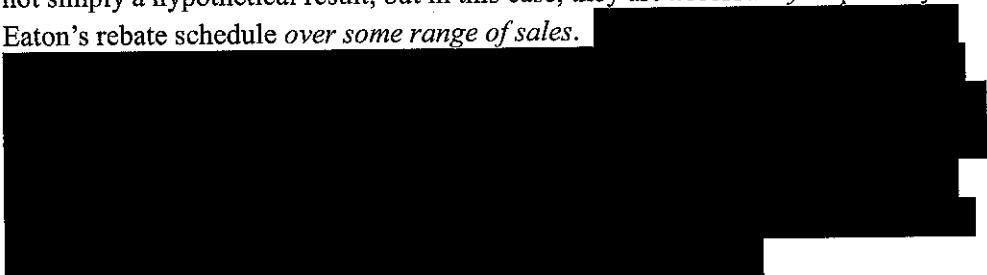
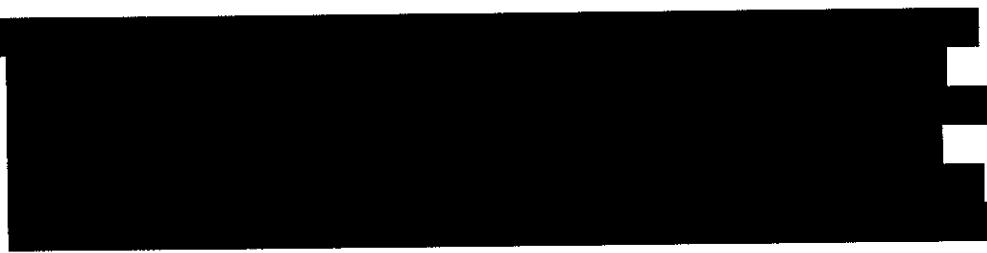
³⁶ P. Greenlee, D. Reitman, and D.S. Sibley, "An antitrust analysis of bundled loyalty discounts," *International Journal of Industrial Organization* 26, no. 5. (2008):1132—1152.

³⁷ *Id.*, p. 1149.

³⁸ Michael D. Whinston, *Lectures on Antitrust Economics*, MIT Press (2006), Chapter 4.

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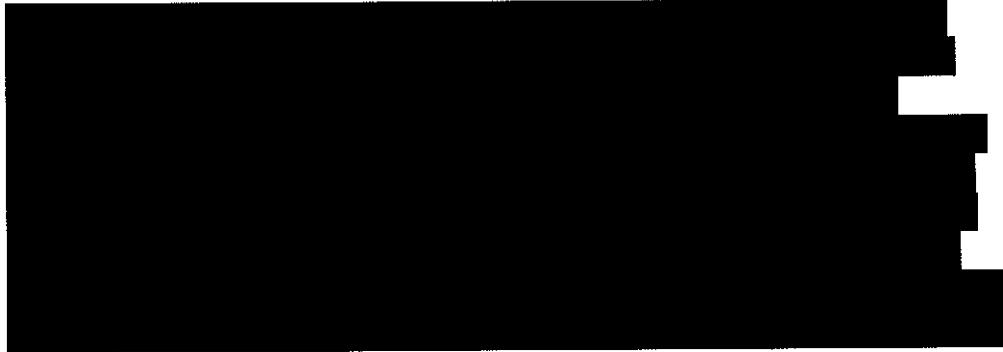
many situations, the results of an attribution test can be highly sensitive to a number of important assumptions for which there is no consensus in either economic theory or practice. An attribution test will depend crucially on the measure of cost used (e.g., variable or total cost), the measure of rebates used (e.g., rebates expected, accrued, or paid), and the share of the monopolist's sales for which the rival can reasonably be expected to compete within a reasonable span of time (given buyers' preferences, potential capacity constraints, and other limitations on buyers' switching behavior). Different assumptions regarding the relevant share of sales on which to apply an attribution test are particularly susceptible to changing the results of such a test, as a monopolist may be able to use a rebate or discount schedule to effectively set prices below cost on its marginal sales for which a competitor is attempting to compete, even though its aggregate sales are priced above cost.

- (18) It is important to note that such below-cost (or even negative) prices at the margin is not simply a hypothetical result, but in this case, they are *necessarily implied by Eaton's rebate schedule over some range of sales.*
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³⁹ See DeRamus Report, ¶162.



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5. Disaggregation is unnecessary, and I account for other relevant factors unrelated to Eaton's anticompetitive conduct

- (20) I did not disaggregate damages into each component of Eaton's conduct, since such a disaggregation is unnecessary.⁴³ This is not a case in which the conduct at issue can be analyzed from an economic perspective as individually separable acts.

[REDACTED] In my report, I analyzed extensively the effect on ZFM's sales and market shares of Eaton's conduct and several other potential explanatory factors, as discussed extensively in Section 8 and 9 of my report (and particularly in Section 9.2).
[REDACTED]

[REDACTED]

⁴² Table 3 of Dr. Sibley's testimony reports only annual data. The figures above are based on a (weighted) average for 2001 and 2002.

⁴³ See Section of Antitrust Law of the American Bar Association, *Proving Antitrust Damages* (1996), pp. 42-43 ("[P]laintiffs normally need not disaggregate the harms attributable to different illegal acts of the defendant. 'Not requiring strict disaggregation of damages among the various unlawful acts of the defendant serves to prevent a defendant from profiting from his own wrongdoing and makes sense when damages arise from a series of unlawful acts intertwined with one another.'" (citing *MCI Communications Corp. v. AT&T*, 708 F.2d 1081, 1161 (7th Cir.), cert. denied, 464 U.S. 891 (1983)).

⁴⁴ See DeRamus Report, Section 9.2.5.

⁴⁵ See DeRamus Report, Section 9.2.5.

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

**6. My damages analysis is not predicated on unreasonably high
“but for” prices**

- (26) Contrary to Eaton’s mischaracterization of my testimony, I have *not* assumed that
“but for” transmission prices would have been higher than actual prices.
- [REDACTED]
- [REDACTED]
- [REDACTED]

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On average, across both the FreedomLine and the ZFM manual transmission series, the “but for” prices implied by my damages analysis are *lower* than actual prices over the relevant period, and the use of actual prices would simply increase my estimate of damages by fully 60%. Even if I hold ZFM actual prices for the FreedomLine constant as of 2004, ZFM’s “but for” damages are still 13% higher than the damages I derived using the prices implicit in the ZFM November 2000 SBP.

- (27) Further, even focusing only on manual transmissions, it is not the case that I have assumed [REDACTED] that the prices of the *same* ZFM manual transmissions would have been higher in the “but for” world. [REDACTED]

A black and white portrait of a man with short, light-colored hair. He has a neutral expression and is looking directly at the camera. A large, solid black rectangular box covers the right half of his face, from the bridge of his nose to the bottom of his chin. The background is dark and indistinct.

- (28) In any event, of primary importance for a damages estimate are the *incremental profits* that ZFM would have earned absent Eaton's anticompetitive conduct. Thus, the primary inputs for a damages estimate in this case is not an estimate of "but for" prices, but rather an estimate of ZFM's per unit incremental profits (or contribution margin) and "but for" market shares. I have conducted an extensive analysis to confirm that the prices and costs in the [REDACTED] are consistent and provide a reliable basis for estimating ZFM's "but for" profits, as discussed below.

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7. I have appropriately verified the reliability and reasonableness of the ZFM business projections used in my analysis

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- (32) In my report, while I consider contribution margin to be appropriate in estimating ZFM's damages, to be conservative I also estimate ZFM damages based on various other (lower) measures of operating profits, *i.e.*, assuming that ZFM would have incurred additional operating and fixed costs to achieve the sales volume predicted by my estimate of ZFM's "but for" market shares.

[REDACTED] Thus, even if the price and contribution margin estimates used in some of my computations were unrealistically high (which they are not), they would be more than balanced by the conservative assumptions regarding incremental operating and fixed costs in the other methods.

- (33) Independently of the ZFM November 2000 SBP, I also constructed an econometric model of ZFM's "but for" market shares, a standard economic technique used to estimate damages.⁶¹ The results of that model provide an alternative damage estimate as well as confirm the reasonableness of the share projections in the ZFM SBP, as evident in Table 3 of my report.⁶² My "base case" econometric model using July 2000 as the beginning of Eaton's anticompetitive conduct shows [REDACTED]

[REDACTED] An alternative econometric model using 1999 as the beginning of Eaton's anticompetitive conduct shows even higher ZFM market shares than my "base case" econometric model, with shares that are significantly higher [REDACTED]

- (34) [REDACTED] I also derive a damages estimate using Eaton's own operating profit margins.⁶³ Of the five different approaches I use to estimate damages, this approach provides the median result. To be conservative, I apply an estimate of Eaton's *operating profit* (rather than contribution margin) for linehaul transmissions to the incremental volume of ZFM's "but for" sales. This approach effectively assumes that on each incremental ZFM's transmission sale, ZFM would have incurred additional operating and fixed costs at the same average level as Eaton (allocated on a per unit basis), *in addition to* the operating and fixed costs that ZFM already incurred. As I discussed in my deposition testimony, the fact that I have

⁶¹ See DeRamus Report, Sections 11.6 and 11.7.

⁶² See DeRamus Report, p. 134.

⁶³ See DeRamus Report, Section 11.10.

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[REDACTED]
[REDACTED] has the highly conservative result that ZFM's "but for" profit margin using this approach is considerably lower than Eaton's.

8. I have reasonably estimated ZFM's FreedomLine sales

- (35) In my damages analysis, I appropriately conclude that ZFM would have sold significant volumes of its FreedomLine transmission absent Eaton's anticompetitive conduct. First, I use a conservative approach to estimating the growth of the share of FreedomLine sales in total market sales, using a polynomial curve rather than a linear trend-line, such that the forecast of FreedomLine sales reaches a maximum of 13.6% of HD linehaul sales during 2006-2009.⁶⁵
- (36) Second, the estimates of automated mechanical transmissions in my analysis are for the FreedomLine alone; I make no assumption regarding the percentage of sales that Eaton would have made with its automated mechanical transmissions.
[REDACTED]
[REDACTED]
- (37) Third, I considered a range of factors in assessing the reasonableness of ZFM's forecast of 2000-2005 FreedomLine sales. For example, as discussed in my report, this result is conservative, as it effectively assumes that the FreedomLine would achieve a market penetration level in NAFTA that is significantly below its market penetration in Europe.⁶⁶
[REDACTED]
[REDACTED]

⁶⁵ See DeRamus Report, Section 11.2.

⁶⁶ See DeRamus Report, Section 11.2.

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- (38) Fourth, as discussed in my report, by depriving ZFM of the ability to compete for a sufficient share of the market to localize production in the U.S., Eaton's conduct led to increased costs and hence prices for ZFM's FreedomLine transmissions.⁶⁷ [REDACTED]

- (39) Fifth, as discussed above, ZFM's forecast of its *total* share was consistent with the results of my econometric forecast. My econometric model is conservative, since it is predominantly calibrated on ZFM's manual sales, and thus it is unlikely to adequately capture ZFM's incremental "but for" share due to its introduction of the FreedomLine.⁶⁸ Thus, if one were to reduce my estimate of ZFM's "but for" FreedomLine sales, I would need to increase my estimate of ZFM's manual sales. As is evident in my report, however, my estimate of damages to ZFM is not sensitive to the "mix" of lost sales as between manual and FreedomLine transmissions. [REDACTED]

Thus, any

⁶⁷ See DeRamus Report, Figure 22 and ¶¶238-241.

⁶⁸ See DeRamus Report, Section 11.6.

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shift in the incremental “but for” volume away from the FreedomLine and towards manual transmissions would simply increase ZFM’s damages.

9. I have appropriately estimated ZFM’s lost enterprise value

- (40) In estimating damages to ZFM from Eaton’s anticompetitive conduct, I estimate both ZFM’s past lost profits and its going-forward lost enterprise value using standard, well-accepted methods of analysis.⁶⁹ In estimating ZFM’s lost enterprise value, I use comparable publicly traded companies to estimate a “multiple” to apply to alternative measures of ZFM’s profits.⁷⁰ ArvinMeritor and Eaton constitute reasonable “comparables,” as confirmed by two alternative sets of comparables.⁷¹ In estimating ZFM’s lost enterprise value, I use data from a range of years to reduce the potential variance associated with relying on a specific point in the business cycle. I use ZFM’s “but for” financials for FY 2006-2008, as 2008 was the last full year for which I had estimated ZFM’s but for profits, and this three-year period spans the business cycle. I use 2005-2007 for the comparables data, as this is the most recent three-year period with complete financials as of the date of my report (due to lags in reporting by many publicly traded companies). Using ZFM “but for” financials for 2005-2007 rather than 2006-2008 would simply increase my estimate of lost enterprise value.
- (41) I do not consider it necessary to apply “multiples” from a specific date to ZFM’s “but for” profits for that same date. The use of one date or another can lead to large volatility in the valuation estimate, due to either financial market conditions unrelated

⁶⁹ See, e.g., Stephen H. Kalos, “Antitrust” In *Litigation Services Handbook, The Role of the Financial Expert*, 4th ed. edited by Roman L. Weil, Peter B. Frank, Christian W. Hughes and Michael J. Wagner (Hoboken, NJ: John Wiley & Sons, Inc., 2007), 24.11; Robert E. Hall and Victoria A. Lazear, “Estimating Economic Losses in Damages Awards (New)” In *Litigation Services Handbook, The Role of the Accountant as Expert*, 2nd ed. 1999 Cumulative Supplement, edited by Roman L. Weil, Michael J. Wagner and Peter B. Frank (New York, John Wiley & Sons, Inc., 1999), 29A.2.; Victoria A. Lazear, “Estimating Lost Profits and Economic Losses” In *Litigation Services Handbook, The Role of the Financial Expert*, 3rd ed. edited by Roman L. Weil, Michael J. Wagner and Peter B. Frank, (New York: John Wiley & Sons, Inc., 2001), 5.2.; Patrick A. Gaughan, *Measuring Business Interruption Losses and other Commercial Damages* (Hoboken, NJ: John Wiley & Sons, Inc., 2004), 70; Robert E. Hall and Victoria A. Lazear in “Reference Guide on Estimation of Economic Losses in Damages Awards” in *Moore’s Federal Practice Reference Manual on Scientific Evidence* (New York: Matthew Bender & Co., Inc., 1997) 478; and Section of Antitrust Law, American Bar Association, *Proving Antitrust Damages: Legal and Economic Issues* (1996) 36; 132-135.

⁷⁰ See DeRamus Report, Sections 11.11 and 11.12.

⁷¹ See DeRamus Report, Section 11.12.

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to the specific business at issue (as in the case of the October 2008 – February 2009 financial market meltdown) or business-specific volatility that is unlikely to be representative of the company’s average future cash flows. Using FY 2006 for both the “multiple” and ZFM’s “but for” profits, for example, would imply a “but for” lost enterprise value considerably *higher* than the estimate of lost enterprise value in my report [REDACTED] but provides slightly lower multiples for the comparables). Including both 2007 and 2008 in an averaging approach provides a valuation that is less sensitive to the selection of any single year, and it produces a more conservative estimate of ZFM’s damages.

- (42) A related issue is whether the current period of significant financial market turmoil – since October 2008 – provides a more reasonable benchmark to assess the “but for” value of ZFM’s business than a benchmark derived under normal financial market conditions. Basing a damages analysis on a period of unprecedented financial turmoil, however, is unlikely to provide a reliable estimate of enterprise value. The value of a business is the discounted present value of its future cash flows. In selecting a “multiple” for a given valuation context, it is thus important to consider whether the multiples and the profits to which they are applied reflect long-run expectations of average future cash flows, appropriately risk-adjusted. Relying on financial market data for the period from October 2008 – February 2009 does not meet these criteria.
- (43) I confirmed the reasonableness of my “comparables” results by cross-validating them against the results that would be obtained by modeling the future cash flows of ZFM. In this cross-validation analysis (often described as the “Gordon growth model”), I used a growth rate based on the applicable Producer Price Index (PPI) and an appropriate discount rate provided by a widely respected, independent source of information (the Ibbotson Cost of Capital Yearbook for 2008).⁷² Thus, if my choice of comparables or the use of a three-year average time period to estimate the ZFM lost enterprise were for some reason inappropriate (or, as alleged by Eaton, “rigged”), I would expect there to be a significant discrepancy between my results obtained by these very different methods. As discussed in my report,⁷³ this approach produces a

⁷² For a discussion of this approach to valuation, see, Section of Antitrust Law American Bar Association, *Proving Antitrust Damages*, 1996, pp. 128-132; for a discussion of discount rates, see, pp. 119-122.

⁷³ DeRamus Report, ¶316.

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valuation that is approximately \$51 million *higher* than applying the “multiple” approach to those same cash flows. This confirms that I have used a reasonable multiple – from an appropriate period – in estimating the lost enterprise value of ZFM due to Eaton’s anticompetitive conduct.

- (44) Eaton asserts that my damages analysis is inconsistent with the guidance of IRS Revenue Ruling 59-60. The purpose of my estimate of ZFM’s enterprise value is to measure damages suffered by ZFM due to Eaton’s anticompetitive conduct. The stated purpose of IRS Revenue Ruling 59-60 is “to outline and review... factors to be considered in valuing shares of the capital stock of closely held corporations *for estate tax and gift tax purposes*” by appraisers.⁷⁴ Thus, even taken at face value, the guidance of IRS Revenue Ruling 59-60 is not applicable to this case.
- (45) Moreover, notwithstanding its lack of applicability, IRS Revenue Ruling 59-60 in fact supports the assumptions and analytical procedures I applied in my analysis. IRS Revenue Ruling 59-60 states, *inter alia*, that an appropriate valuation “will depend upon the circumstances in each case,” as there is no generally applicable formula to different valuation issues;⁷⁵ “[w]hen a stock... is traded in an erratic market, some other measure of value must be used;”⁷⁶ “value has a close relation to future expectancy;”⁷⁷ and “detailed profit-and-loss statements should be obtained and considered for a representative period immediately prior to the required date of appraisal, preferably five or more years.”⁷⁸ My analysis is consistent with each of these statements and is not contradicted by any other guidance in the Revenue Ruling.

⁷⁴ IRS revenue Ruling 59-60, Section 1 (emphasis added).

⁷⁵ Id., Section 3.01.

⁷⁶ Id., Section 3.03.

⁷⁷ Id., Section 4 (a).

⁷⁸ Id., Section 4 (d).

Declaration of David W. DeRamus, Ph.D.

I declare under penalty of perjury that the foregoing is true and correct.



June 11, 2009

David W. DeRamus, Ph.D.

Date

UNITED STATES DISTRICT COURT

DISTRICT OF DELAWARE

)
ZF MERITOR LLC and MERITOR) FILED UNDER SEAL
TRANSMISSION CORPORATION)
Plaintiffs,)
v.) Civil Action No. 06-623 (SLR)
EATON CORPORATION)
Defendant.)

DECLARATION OF MICHAEL H. RIORDAN

1. My name is Michael H. Riordan. I am Laurans A. and Arlene Mendelson Professor of Economics at Columbia University, and have been appointed Chair of the Department of Economics there effective next month. I have taught graduate and undergraduate courses on industrial organization, business strategy, and antitrust economics. I have published numerous papers on topics in industrial organization and antitrust economics, including articles in leading scholarly journals such as the *American Economic Review*, *Journal of Political Economy*, *Quarterly Journal of Economics*, and the *Rand Journal of Economics*. Industrial organization economics is a major field of economics, for which antitrust economics is an important subfield. I am an elected fellow of the Econometric Society. I served as economic advisor at the Federal Trade Commission and as chief economist at the Federal Communications Commission. I have provided expert advice to the Department of Justice, Federal Trade Commission, and New Zealand Commerce Commission on antitrust

matters, and have provided expert testimony in private antitrust litigation. My CV is attached.

2. I am being compensated at an hourly rate of \$650.
3. I have been asked by attorneys for ZF Meritor LLC and Meritor Transmission Corporation (Plaintiffs) to evaluate whether the report of Plaintiffs' expert Dr. David DeRamus uses appropriate methods of economic analysis. In preparing my testimony, I reviewed that report, as well as reports by Eaton Corporation's experts Dr. Kevin Murphy and Dr. David Sibley. I also reviewed the Daubert motion prepared by Eaton's lawyers.
4. DeRamus concluded that Eaton's contracts with truck manufacturers (OEMs) and other conduct harmed competition and anticompetitively excluded Plaintiffs from the markets for heavy duty truck transmissions. DeRamus analyzed the competitive effects of Eaton's contracts with truck manufacturers and other conduct. For his competitive effects analysis, DeRamus evaluated how Eaton's conduct excluded Plaintiffs and harmed consumers, and weighed these harms against potential (but found by DeRamus to be unpersuasive) procompetitive benefits. Such a "consumer-welfare analysis" for balancing competitive effects is an accepted method of analysis in antitrust economics.
5. From an antitrust perspective, exclusionary conduct departs from "competition on the merits." DeRamus analyzed how Eaton's conduct impaired Plaintiffs' ability to compete on the merits and how this impairment reduced consumer welfare. In doing so, DeRamus drew on well-regarded theories from the economics literature on foreclosure.

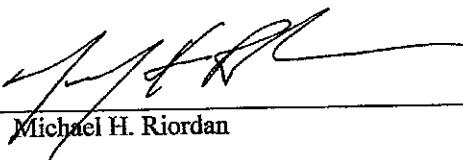
6. Murphy advocates an “attribution test” for assessing exclusionary conduct. An appropriately designed attribution test is a method for determining if questionable conduct would exclude a hypothetical equally efficient competitor, meaning a rival firm with the same products and same costs. There are problems with using an attribution test here. First, by focusing narrowly on rebates, it ignores other exclusionary conduct that impairs competition on the merits. Second, a failure to exclude a hypothetical equally efficient competitor does not mean that consumers are unharmed by the exclusion of an actual or potential competitor with different products and different costs.
7. Moreover, there is no consensus in the antitrust economics literature that an attribution test is a superior method for identifying exclusionary conduct compared to a consumer welfare analysis, or that an attribution test is an essential supplement to a consumer welfare analysis. Furthermore, the devil really is in the details when performing an attribution test. It is important to measure costs appropriately, to make an appropriate adjustment for scale economies, to measure rebates accurately, and so forth.
8. DeRamus also analyzed the damages incurred by Plaintiffs as a result of Eaton’s exclusionary conduct. For his damages analysis, DeRamus estimated the increased present discounted value of profits that Plaintiffs would have earned but for Eaton’s anticompetitive conduct. Any but-for damages analysis is necessarily counterfactual. Some assumption must be made about how profits would have been determined in the absence of anticompetitive conduct. DeRamus assumed that Plaintiffs’ market share and price would have been the same as projected by ZF Meritor in 2000, but that total units sold by the industry would have been the same as actually occurred. These are sensible and conservative assumptions. It is a fair presumption that businesses are well-informed about the markets in which they operate,

and have incentives for accurate projections for planning purposes. The assumption about Plaintiffs' market share is conservative to the extent that ZF Meritor's 2000 projection accounted for Eaton's anticompetitive conduct. The assumption about total units sold is conservative because it is possible that unimpaired sales of ZF Meritor's innovative transmission might have expanded the market.

9. Sibley criticizes that DeRamus failed to "disaggregate" damages, but is not very clear about why disaggregation is important except that he says that the contracts with different OEMs could have had different impacts on Plaintiffs. Eaton's lawyers go further by suggesting that damages should be measured only for those parts of the contracts that are anticompetitive. Such an analysis implicitly makes the counterfactual assumption that Eaton would have engaged in exactly the same conduct except for the deletion of the anticompetitive conduct. I do not see why such a counterfactual is appropriate. Furthermore, Sibley does not provide an appropriate methodology for measuring the isolated effects of particular conduct.
10. My conclusion is that DeRamus did employ appropriate economic methods in reaching his conclusions about liability and damages.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Dated: June 10, 2009



Michael H. Riordan

May 2009

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EDUCATION

Ph.D. in Economics, University of California at Berkeley, 1981
M.A. in Economics (with distinction), University of Essex, 1975
B.S. in International Relations, Georgetown University, 1973

RESEARCH

Industrial Organization, Antitrust and Regulation, Telecommunications

TEACHING

Graduate: Industrial Organization and Regulation
Undergraduate: Antitrust Economics; Economics of Art and Entertainment

POSITIONS

Laurans A. and Arlene Mendelson Professor of Economics, Columbia University, 2008 –
Laurans A. and Arlene Mendelson Professor of Economics and Business, Columbia University, 2000-2008
Professor of Economics, Graduate School of Arts and Sciences, Columbia University, 1999-2000
Professor of Finance and Economics, Graduate School of Business, Columbia University, 1999-2000
Visiting Professor and Visiting Scholar, Department of Economics, Yale University, 1998-1999.
Professor, Department of Economics, Boston University, 1988-1999.
Chief Economist, Federal Communications Commission, 1997-1998.
Economic Advisor, Federal Trade Commission, 1992-1993.
Visiting Research Professor, University-Wide Energy Research Group, University of California at
Berkeley, 1991-1992.
Associate Professor, Department of Economics, Stanford University, 1988 (on leave).
Assistant Professor, Department of Economics, Stanford University, 1984-1988.
Assistant Professor, Department of Economics, University of Pennsylvania, 1981-1984.
Acting Instructor, Department of Economics, University of California at Berkeley, 1980.
Economist (summer intern), International Monetary Fund, 1978.
Research Assistant, Federal Reserve Bank of San Francisco, 1976.

Michael H. Riordan

May 2009

HONORS AND AWARDS

ISERP Faculty Fellow, Fall, 2004-
Listed in *Who's Who in Economics* (3rd Edition).
Jerry S. Cohen Memorial Award for Antitrust Scholarship, July 2002.
Fellow, Econometric Society, elected 1994.
Fulbright Scholar, South America, 1989.
National Fellow, Hoover Institution, Stanford University, 1986-1987.
Faculty Research Fellowship, University of Pennsylvania, Summer 1983.

GRANTS AND CONTRACTS

IPA Assignment, Chief Economist, Federal Communications Commission, 4/1/97-6/30/98.
"Incentive Contracting for State Substance Abuse Services," with T. McGuire, National Institute of Drug Abuse, Grant No. 1-R01-DA08715-01, 9/1/93 - 8/31/96.
IPA Assignment, Economic Advisor, Office of Commissioner Yao, Federal Trade Commission, 9/14/92-5/31/93.
"Learning-By-Doing and Industrial Organization," National Science Foundation, Grant No. SES-9122089, 6/1/92 - 5/31/94.
"The Economics of Telecommunications Networks," Research Grants, GTE Laboratories, 1990-1992.
"The Market Structure for Drug Abuse Services," with T. McGuire, NIDA Center for Drug Services Research, Contract 2171-89-8516, 1990-1991
"Private Information, Communication and Contracting," National Science Foundation, Grant Nos. IST-8507300 (7/1/85 - 12/31/87), and IRI-8706150, 7/1/87 - 12/31/89.
"Cost-Based Regulation and Competition," Research Grant, Center for Economic Policy Research, Stanford University, 1987-1988.
"Procurement Contracting and 'Spillovers' from Learning by Suppliers," Research Grant, Center for Economic Policy Research, Stanford University, Summer 1987.
"The Economics of Defense Contracting," Research Grant, Center for Economic Policy Research, Stanford University, 1986-1987.
"Optimal Contracting with Asymmetric Information," National Science Foundation Grant No. IST-8317249, 1/15/84 - 6/30/85.

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- "Price and Quality in a New Product Monopoly," with Kenneth L. Judd, Review of Economic Studies, 61(4), October 1994, 773-89.
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BOOK REVIEWS

Review of "Optimal Regulation: The Economic Theory of Natural Monopoly, by Kenneth E. Train," Journal of Economic Literature 30, September 1992.

SUBMISSIONS AND CURRENT RESEARCH

- "Equilibrium Product Selection," with Yongmin Chen, in preparation.
- "Quality Competition in a Winner-Take-All Market," revised, January 2009.
- "Low Income Demand for Telephone Service: Effects of Lifeline and Linkup" with D. Ackerberg, G. Rosston and B. Wimmer, March 2008.
- "Telephone Penetration of Low Income Households," with D. Ackerberg, G. Rosston and B. Wimmer, Center for Economic Studies, Census Bureau.
- "Ain't It 'Suite'? Strategic Bundling in the PC Office Software Market," with Neil Gandal and Sarit Markovich, preliminary working paper, March 2004.

OTHER UNPUBLISHED WORKING PAPERS

- "Capital Markets Constrain Industry Scale," with Eslyn Jean-Baptiste, working paper, September 2003.
- "Exclusion and Integration in the Market for Video Programming Delivered to the Home," with David Salant, Boston University Industry Studies Program working paper #51, September 1994.
- "Predatory Pricing in Immature Markets," for presentation at the Charles River Associates' conference on *Antitrust in Today's Economy*, April 1994.
- "The Effect of Reimbursement Policy on Services and Capacity in Public Drug Treatment," with Dominic Hodgkin and Tom McGuire, August 1991.
- "Hierarchical Control and Investment Incentives in Procurement." Working Paper E-87-44, Hoover Institution, Stanford University, September 1987.
- "Equilibrium Price Dynamics for an Experience Good," with Kyle Bagwell, Discussion Paper #175, The Center for Mathematical Studies in Economics and Management Sciences, Northwestern University, October 1986, revised September 1987.
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May 2009

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- "Credit-Labor Transactions with a Dominant Landlord: A Theoretical Note," with Pranab Bardhan, manuscript.

PRESENTATIONS AT CONFERENCES AND PROFESSIONAL MEETINGS

- "Quality Competition and Multiple Equilibria," 27th Australasian Economic Theory Workshop, Massey University, February 20-21, 2009.
- "Equilibrium Product Selection," Fifth Summer Workshop in Industrial Organization," University of Auckland, February 27-28, 2009.
- "Universal Service Reform" (keynote lecture), Fourth Conference on Regulation, Competition and Universal Service in the Postal Sector, Institut d'Economie Industrielle (IDEI), Toulouse, March 16-17, 2006.
- "Product Improvement and Technological Tying in a Winner-Take-All Market," Conference on Economics in Competition Policy, Canadian Competition Bureau, Ottawa, April 27-28, 2006.
- "Quality Competition in a Winner-Take-All Market," Conference in Celebration of Jim Friedman's 70th Birthday, Duke University, Nov. 4-5, 2006.
- "Competitive Effects of Vertical Integration," LEAR Conference on Advances in the Economics of Competition Law, Rome, June 23-25, 2005.
- "Price and Variety in the Spokes Model," Summer Workshop on Industrial Organization and Management Strategy, Tsinghua University, Beijing, June 8-9, 2005.
- "Low Income Demand for Telephone Service: The Effects of Lifeline and Linkup," International Industrial Organization Conference, Atlanta, April 9-10, 2005.
- "Vertical Integration, Exclusive Dealing, and Ex Post Cartelization," International Industrial Organization Conference, Atlanta, April 9-10, 2005.
- "Ain't It Suite: Bundling in the PC Office Software Market," 18th Summer Conference on Industrial Organization, University of British Columbia, Whistler, July 9-10, 2004.
- "Predatory Pricing: Strategic Theory and Legal Policy," Conference on Use of Economics in Competition Law, London, March 11-12, 2004.
- "Vertical Integration, Exclusive Dealing, and Ex Post Cartelization," Duke-Northwestern-Texas IO Theory Conference, Evanston, October 18-19, 2003.
- "Low Income Demand for Telephone Service: The Effects of Lifeline and Linkup" Telecommunications Policy Research Conference, September 2003.
- "Competitive Local Exchange Services," Conference on Regulatory Reforms in Telecommunications, Moscow, Russia, June 27-28, 2003.
- "Vertical Integration, Exclusive Dealing and Cartelization," Workshop on Antitrust and Regulation, Padua, Italy, April 2003.
- "Industrial Organization and Corporate Finance," keynote address, First Annual International Industrial Organization Conference, Boston, April 2003.
- "Competitive Effects of Vertical Mergers," plenary session (invited), E.A.R.I.E. Conference, Madrid, Spain, September 2002.
- "Product Improvement and Technological Tying," Theoretical Industrial Organization Conference, University of Texas, May 2002.
- "An Economist's Perspective on Universal Residential Telephone Service," 27th Annual Telecommunications Policy Research Conference, Alexandria, VA, September 25-27, 1999.
- "Universal Residential Service: An Economist's Perspective," London Business School Conference, April

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May 2009

- 1999.
- "Dynamics of Price Regulation," with Gary Biglaiser, Tel Aviv University Mini-Conference on Antitrust and Regulation, May 26, 1999.
- "Estimation of a Production Process for Health Care Treatment: A Preliminary Analysis," NBER Productivity Workshop, December 1998.
- "Dynamics of Price Regulation," with Gary Biglaiser, Telecommunications Policy Research Conference, Washington D.C., September 1988.
- "Dynamics of Price Regulation," with Gary Biglaiser, European Summer Symposium in Economic Theory, Gerzensee, Switzerland, June 29-July 10, 1998.
- "Predatory Pricing: Strategic Theory and Legal Policy," with Patrick Bolton and Joseph Brodley, European Summer Symposium in Economic Theory, Gerzensee, Switzerland, June 29-July 10, 1998.
- "The Transition to Competition," with Gary Biglaiser, European Summer Symposium in Economic Theory, Gerzensee, Switzerland, June 29-July 10, 1998.
- "The Transition to Competition," with Gary Biglaiser, Conference on Regulation and Competition in Network Industries, Barcelona, Spain, June 5-6, 1998.
- "Anticompetitive Vertical Integration by a Dominant Firm," Summer Conference on Industrial Organization, University of British Columbia, Vancouver, July 11-12 1996.
- "Anticompetitive Vertical Integration by a Dominant Firm," Economia Industrial Conference, Universidad Carlos III de Madrid, Spain, July 3-5 1996.
- "Predation in a Learning Curve Model," Conference on Networks and Competition, October 20-22, 1994, Institute d'Economie Industrielle, Toulouse, France.
- "Predatory Pricing in New Markets," Charles River Associates' Conference on "Antitrust in Today's Economy," Boston, April 1994.
- "Learning to Compete and Vice Versa," Carleton Industrial Organization Summer Conference, July 1992.
- "Competition in Banking: A Theoretical Perspective," CEPR Conference on Financial Intermediation and the Reconstruction of Europe, San Sebastian, Spain, March 1992.
- "Learning to Compete and Vice-Versa," Econometric Society Meetings, January 1992.
- "Preemptive Adoption of New Technologies," Telecommunication Policy Research Conference, September 28-30, 1991, Solomon's Island, MD.
- "Regulation and Preemptive Technology Adoption: Cable TV versus Telephone Companies," Telecommunication Policy Research Conference, September 30-October 2, 1990, Airlie House, Warrenton, VA.
- "Technology Adoption in a Regulated Duopoly," International Conference on Information, Incentive and Regulation, September 4-5 1990, Institute d'Economie Industrielle, Toulouse, France.
- "Ownership Without Control: Toward a Theory of Backward Integration," ASSA Meetings, Atlanta, December 1989.
- "Auditing and Investment Incentives in Procurement," ORSA/TIMS Meetings, New York, October 1989.
- "Incentives for Cost Reduction in Defense Procurement," Conference on Incentives in Procurement Contracting, NBER, Cambridge, September 1989.
- "Asset Specificity and Backward Integration," Summer Industrial Organization Workshop, Northwestern University, July 1989.
- "Ownership Without Control: Towards a Theory of Backward Integration," Carleton Industrial Organization Summer Conference, Carleton University, Canada, July 1989.
- "Asset Specificity and Vertical Integration," International Seminar on the New Institutional Economics, Universitat des Saarlandes, West Germany, May/June 1989.
- "Contracting Out," Policy Forum on Public Sector Management, John Deutch Institute for the Study of Economic Policy, Queen's University, Canada, February 1989.
- "Second Sourcing," with D. Sappington, Econometric Society Summer Meeting, University of Minnesota, June 1988.
- "Hierarchical Control and Investment Incentives in Procurement," Econometric Society Summer Meeting, University of Minnesota, June 1988.

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- "What is Vertical Integration?," SCASSS Conference on The Firm as a Nexus of Treaties, Uppsala, Sweden, June 1988.
- "Incentives for Cost Reduction Under Price Cap Regulation," with L. Cabral, CEPR Conference on Public Utility Regulation, Stanford University, April 1988.
- "Commitment in Procurement Contracting," with D. Sappington, ORSA/TIMS Meeting, New Orleans, May 1987.
- "Information, Incentives and Organizational Mode," with D. Sappington, Workshop on Incentives and Hierarchies, Birkbeck College, University of London, July 1986.
- "Awarding Monopoly Franchises," with D. Sappington, Econometric Society Summer Meeting, June 1986, Duke University.
- "Repeated Majority Voting," with D. Epple, Carnegie Conference on Political Economy, Carnegie-Mellon University, May 1986.
- "Designing Procurement Contracts," Conference on Issues in the Economics of Defense Procurement, Rand Corporation, May 1986.
- "Awarding Monopoly Franchises," with D. Sappington, Conference on Regulation and Information, Bell Communications Research, May 1986.
- "Industry Structure with Sequential Technology Choice," with R. McLean, Conference on Games and the Theory of Firm Behavior, University of Western Ontario, May 20-21, 1985.
- "Incomplete Information and Conjectural Variations," Econometric Society Summer Meeting, Stanford University, June 27-30, 1984.
- "Information, Incentives and Vertical Contracting," with D. Sappington, CSOI/Sloan Conference on the Economics of Organization, University of Pennsylvania, June 13-14, 1984.
- "Asset Specificity and Economic Organization," with O. Williamson, Eastern Economics Association Convention, New York, March 1984.
- "Advertising as a Signal," with R. Kihlstrom, Econometric Society Meeting San Francisco, December 1983.
- "Contracting in an Idiosyncratic Market," Econometric Society Summer Meeting, New York, June 1982.
- "Advertising as a Signal," with R. Kihlstrom, NBER/KGSM Conference on Time and Uncertainty in Economics, Northwestern University, April 16-18, 1982.
- "Optimal Contracts in an Idiosyncratic Market," Eastern Economics Association Convention, Washington, D.C., April 19 - May 1, 1982.

OTHER PROFESSIONAL ACTIVITIES

Member, Census Committee, American Economic Association, 2007 -

Member, Scientific Advisory Board, International Journal of Industrial Organization, 2007 -

Co-chair, Universal Service Working Group, Digital Age Communication Act Project, Progress and Freedom Foundation, 2005-2006

Member, Board of Directors, New York Census Regional Data Center, 2004 -;
Executive Committee Member, 2004-2005; Finance Committee Member, 2008 -

Editor:

Member, Board of Editors, *American Economic Review*, 1999-2004.
Co-Editor, *RAND Journal of Economics*, 1990-1997.
Associate Editor, *Quarterly Journal of Economics*, 1988-1997.

Director, Industry Studies Program, Department of Economics, Boston University, 1990-1999.

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Program Committee:

Econometric Society Meetings: Winter 2003, Winter 2000, Summer 1993, and Winter 1992.
Telecommunications Policy Research Conference: 1992 and 1993.

Speeches and Panels:

- Panel Discussion, Cornerstone Research New York Antitrust Forum, October 2008.
- Panel Discussion, "Investment and Competition in Network Industries," Toulouse School of Economics Inauguration, June 2, 2008.
- Panel Discussion, "Structural Separation in Dynamic Markets: Lessons for the Internet, Lessons for Europe," Conference on The Enduring Lessons of the Breakup of ATT&T: A Twenty-five Year Perspective, University of Pennsylvania Law School, April 18-19, 2008.
- Panel Discussion, Symposium on Telecommunications Regulation, USC, Annenberg Center for Communication, Oct. 13, 2006
- Panel Discussion, "Procurement Options," CITI Conference on Wireless Communications and Universal Service, Columbia University, December 2005.
- Panel Discussion, "DACA Working Group Proposal on Universal Service Reform," Progress and Freedom Foundation, Washington D.C., December 7, 2005.
- Panel Discussion, "Marketplace Reality Check: The Rhetoric and Reality of Universal Service," Conference on Universal Service Policy - Challenges and Opportunities for a New Telecom Act (Center for the New West), Washington, D.C., April 22, 2005.
- Panel Discussion, "Universal Service," Silicon Flatirons Conference on Universal Service and E-911 Policy in an Age of Convergence, University of Colorado School of Law, October 21, 2004.
- "Universal Broadband: Can We Get There, and How?" Presentation to Congressional staff, sponsored by Georgetown University, McDonough School of Business, October 18, 2004.
- "Competitive Local Exchange Service," FCC Chief Economists Conference, Georgetown, October 17, 2003.
- Panel Discussion, "Entering the Debate, Influencing the Agenda, Continued," Telecommunications Policy Research Conference, Alexandria, VA, September 2002
- Panel Discussion, "Why Close the Digital Divide?," CITI Conference, Columbia University, June 2001.
- "Conundrums for Telecommunications Policy," National Economists Club, Washington, D.C., May 28, 1998.
- Roundtable Discussion, IOS/PIEP Mini-Conference: Making Microeconomic Policy, George Washington University, Washington, D.C., June 9, 1999.
- "FCC Merger Policy," CRA Conference on "Economists' Perspectives on Antitrust Today," Boston, Mass., April 30, 1998.
- "FCC Merger Policy: The Bell Atlantic - NYNEX Order," 1998 Spring Meeting of the NARUC Staff Subcommittee on Accounts, San Diego, March 17, 1998.
- "The Regulation of Privatized Industries," conference organized by British Embassy in Mexico, the World Bank, and the Secretariat of Trade and Industrial Development in Mexico, Mexico City, December 1997.
- "The Transition to Competition," AICGS Conference on "Telecommunications Reform in Germany: Lessons and Priority," Bonn, Germany, November 19-20, 1997.
- "Market Power: Mergers, Acquisitions and Deregulation," National Association of Regulatory Utility Commissioners Convention, Boston, Mass., November 11, 1997.
- FCC Panel, Janney Montgomery Scott Telecommunications Regulation Conference, Boston, Mass., November 11, 1997.
- "Mobile Communications: Lessons Learnt from the U.S.," ACI Mobile Communications Conference, Sydney, Australia, September 24-25, 1997.

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"The Interplay Between Antitrust and Intellectual Property Protection," Antitrust conference sponsored by Business Development Associates, Washington, DC, March 1995.
Session on "Information Markets and Firms," Global Communications Forum, Tokyo, Japan, October 30-31, 1991.

Invited Lectures:

- "Telecommunications Regulation in the United States," Harvard Institute for International Development, July 1998.
- "The Theory of Contracts," Tel Aviv University, Israel, May-June 1994.
- "The Theory of Contracts," Center for the Study of the New Institutional Economics, Universitat des Saarlandes, West Germany, August 1992.
- "Economics and Law of Incomplete Contracts," Center for the Study of the New Institutional Economics, Universitat des Saarlandes, West Germany, July-August 1990.
- "Incomplete Contracts, Renegotiation and Ownership," Faculdade de Economia, Universidad Nova de Lisboa, Portugal, May-June 1990.
- "The Regulation of Monopolies," Conference on Regulation: U.S. Experiences, CERES, Montevideo, Uruguay, August 1989.
- "Information and Coordination in the Enterprise and the Economy," People's University of China, Beijing, July 1987.
- "Contracting with Asymmetric Information," Universidad Autonoma de Barcelona, March 1987.

Conference Organizer:

- "Conference on Industrial Organization of Health Care", Boston University, 1993 (with Thomas McGuire) and 1995 (with Albert Ma and Thomas McGuire).
- "Regulating Diverse Competitors," with Michael Salinger and Ingo Vogelsang, Telecommunications Policy Forum, Boston University, May 1995.
- "A Vision of Telecommunications Market Structure," with Michael Salinger and Ingo Vogelsang, Telecommunications Policy Forum, Boston University, May 1994.
- "Conference on the Economics of Organization," with David Sappington and Pablo Spiller, University of Pennsylvania, June 1984.

Referee: American Economic Review; Bell Journal of Economics; B.E. Press; Information, Economics and Policy; Economica; Econometrica; Economic Inquiry; European Economic Review, Quarterly Journal of Economics; International Economic Review; International Journal of Industrial Organization; Journal of Economic Behavior and Organization; Journal of Economics and Management Strategy; Journal of Industrial Economics; Journal of the Japanese and International Economies; Journal of Law, Economics and Organization; Journal of Labor Economics; Journal of Political Economy; Journal of Public Economics; RAND Journal of Economics; Review of Economic Studies; Scandinavian Journal of Economics; Journal of Economics and Management Strategy; Journal of Public Economics.

Reviewer: Academic Press, M.I.T. Press, National Science Foundation, Oxford Economic Press, University of Chicago Press.

Member: American Economic Association, Econometric Society, European Economic Association, American Bar Association (affiliate).

Consulting: AOL-Time Warner, Charles River Associates, Conmed, Department of Justice, Federal Trade Commission, New Zealand Commerce Commission, RIAA, SESAC, Vodafone.

UNITED STATES DISTRICT COURT
DISTRICT OF DELAWARE

ZF MERITOR LLC and MERITOR) FILED UNDER SEAL
TRANSMISSION CORPORATION)
Plaintiffs,)
v.) Civil Action No. 06-623 (SLR)
EATON CORPORATION)
Defendant.)

)

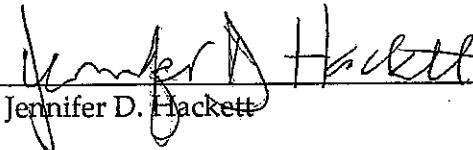
DECLARATION OF JENNIFER D. HACKETT

1. My name is Jennifer D. Hackett. I am an attorney employed by the law firm of Dickstein Shapiro LLP in Washington DC, and represent plaintiffs ZF Meritor LLC and Meritor Transmission Corporation.
2. I am providing this Declaration with regard to Plaintiffs' Answering Brief in Opposition to Defendant's Motion to Exclude Opinion Testimony of Dr. David W. DeRamus.
3. Attached hereto in the Appendix, at A-290-301, "ZFMA0034381-92," is a true and correct copy of a document produced from plaintiffs' files.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Dated:

6/11/09


Jennifer D. Hackett

CERTIFICATE OF SERVICE

I, Karen V. Sullivan, hereby certify that on this 18th day of June 2009, a copy of the foregoing document was served on the following counsel of record via CM/ECF and U.S. mail:

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/s/ Karen V. Sullivan
Karen V. Sullivan (No. 3872)